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3430 Evaluation

December 7, 1981

Evaluation of Pacific Silver Fir Decay, Ridgerunner Sale,
Quinault RD

Forest Supervisor, Olympic NF

On October 29-30, 1981, Gregory M. Filip, Plant Pathologist, Forest Pest Management staff at the Regional Office, visited the Quinault Ranger District, Olympic National Forest, Washington. Purpose of the visit was to examine Pacific silver fir-western hemlock stands with excessive amounts of stem decay. He was accompanied by Paul Aho, Research Pathologist with the Pacific Northwest Forest and Range Experiment Station, Corvallis; Ken Russell, Plant Pathologist with the Washington State Department of Natural Resources, Olympia; and Mel Davis, Supervisory Forestry Technician on the Quinault Ranger District.

The area they visited was on Matheny Ridge in the Ridgerunner Sale. Purpose of the sale was to salvage blowdown from the 1981 Lincoln Day Storm. Portions of the sale area examined were at the top of the ridge, and the stand there was composed of old-growth Pacific silver fir and western hemlock. Trees in the surrounding stand had evidence of severe top damage accumulated over several decades as indicated by crooks, fork tops, volunteer tops, and broken tops.

The decay problem was first brought to the attention of Ken Russell by the Anderson Mill of Elma, Washington, purchasers of the sale, after logs scaled as sound failed to produce expected volumes of sound lumber when cut at the mill.

Ken Russell forwarded a sample of decayed wood to Paul Aho to culture and identify the decay-causing organism which, subsequently, was identified as *Poriclum abietis*, causal agent of "long pocket rot." Most of the decay was confined to trees at the top of the ridge. Trees harvested below the ridge were more sound. It was suspected that top breakage, possible entry courts for the fungus, was more prevalent at the ridge top. Also, many of the trees had basal wounds. It was suspected that basal wounds may have been caused by bears or ridgetop fires. Extensive rot columns of *Fomes annosus*, *Armillaria mellea*, and *Poriclum abietis* were noted in windthrown trees and residual stumps in the sale area.

The cull factors used for top damage and basal wounds may be too conservative to adequately deduct the volumes lost as decay. It was recommended that FPM, in consultation with Paul Aho, perform an evaluation to develop more accurate cull factors for four sales on Matheny Ridge. Logging will continue in the area next summer, so a 1- to 2-week evaluation is feasible during that time. Cooperation between FPM pathologists, District personnel, and sale purchasers will be essential to perform this evaluation.

The Anderson Mill in Elma was visited. Many of the logs being sawn that day had decay that appeared to have been caused by *H. abietis*, however, according to mill personnel, volume losses were not as great as when Ken Russell was first contacted. Glen Anderson stated that scalers were not recognizing the light-colored pockets on log ends as indicators of extensive decay within the logs. This problem has been demonstrated to the scalers in the area and should be corrected in the future.

Greg Filip will be in contact with Mel Davis concerning details of the cull evaluation. If FPM can be of further service, please contact us.

PAUL E. BUFFAM

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